

As a result, A-T-O Inc.'s Scott Aviation division has begun producing the breathing equipment, called "Air Pak 4.5." The apparatus was received enthusiastically when its commercial availability was announced at the fall 1975 International Association of Fire Chiefs meeting in Las Vegas. Other companies expressing interest in commercializing the NASA system were briefed at an industry workshop last November at Johnson Space Center.

Structural Composites Industries Inc. now is offering similar fiberglass-lined cylinders commercially. In a spinoff of a spinoff, The Boeing Co. may use the lighter tanks on 747s to energize emergency-escape shutles. And Martin-Marietta Corp., Denver, a NASA contractor that developed the aluminum cylinder, is using them to pressurize Navy life rafts.

### Firefighters' radios

Good short-range radio communications are essential during a fire to coordinate hose lines, rescue victims, and otherwise increase efficiency. A useful firefighting tool is a new lower-cost, more rugged, short-range two-way radio now being developed.

In 1973, Public Technology Inc. defined user requirements and searched NASA technology to devise the new radio. The effort uncovered a NASA patent on an inductorless electronic circuit developed at Goddard for weather balloon communications.

The unconventional circuit replaced inductances and coils in radio circuits with combinations of transistors and other low-cost components. This substitution promises reduced circuit size and cost, enhanced electrical performance, made the radio more durable, and improved maintainability by incorporating modular construction.

Twenty-five firefighters' radios are being built and field testing is planned for this year. Fire departments in Cincinnati, Houston, New York, Providence, Long Beach, Calif., and Fairfax Co., Va. now are testing the radios in actual fires.

*Astronauts' lightweight airtanks,  
helmets, and two-way radios  
have been spun off  
to provide firefighters  
better mobility, vision,  
and communications.*

